

# Inside Wallops

National Aeronautics and Space Administration  
Goddard Space Flight Center  
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## NASA Unveils Cosmic Images Book in Braille for Blind Readers

NASA has a new book that brings majestic images taken by its Great Observatories to the fingertips of the blind.

"Touch the Invisible Sky" is a 60-page book with color images of nebulae, stars, galaxies and some of the telescopes that captured the original pictures. Each image is embossed with lines, bumps and other textures.



These raised patterns translate colors, shapes and other intricate details of the cosmic objects, allowing visually impaired people to experience them.

Braille and large-print descriptions accompany each of the book's 28 photographs, making the book's design accessible to readers of all visual abilities.

The book contains spectacular images from the Hubble Space Telescope, Chandra X-ray Observatory, Spitzer Space Telescope and powerful ground-based telescopes. The celestial objects are presented as they appear through visible-light telescopes and different spectral regions invisible to the naked eye, from radio to infrared, visible, ultraviolet and X-ray light.

The book introduces the concept of light and the spectrum and explains how the different observatories complement each others' findings.

Readers take a cosmic journey beginning with images of the sun, and travel out into

the galaxy to visit relics of exploding and dying stars, as well as the Whirlpool galaxy and colliding Antennae galaxies.

"Touch the Invisible Sky" was written by astronomy educator and accessibility specialist Noreen Grice of You Can Do Astronomy LLC and the Museum of Science, Boston, with authors Simon Steel, an astronomer with the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass., and Doris Daou, an astronomer at NASA Headquarters.

"About 10 million visually impaired people live in the United States," Grice said. "I hope this book will be a unique resource for people who are sighted or blind to better understand the part of the universe that is invisible to all of us."

"We wanted to show that the beauty and complexity of the universe goes far beyond what we can see with our eyes!" Daou said.

"One of the greatest challenges faced by blind students who are interested in scientific study is that certain kinds of information are not available to them in a non-visual form," said Marc Maurer, president of the National Federation of the Blind. "Books like this one are an invaluable resource because they allow the blind access to information that is normally presented through visual observation and media. Given access to this information, blind students can study and compete in scientific fields as well as their sighted peers."

The prototype for this book was funded by an education grant from the Chandra mission. Production was a collaborative effort by the NASA space science missions, which provide the images, and other agency sources.

## Wallops Shorts.....

### On the Road

Dave Kotsifakis, NASA GN&C and Mission Systems Engineering Branch, participated in a Career Day event at Stephen Decatur Middle School, Berlin, MD., for approximately 650 seventh and eighth grade students on January 16.

### Congratulations to the Balloon Teams

NASA's Scientific Balloon Program has just completed another very successful campaign in Antarctica. For the first time, the balloon team launched and tracked three long duration balloons at the same time. The CREAM payload was launched on Dec. 19, 2007, and was at float for 29 days. The ATIC payload flew from Dec. 26, 2007, to Jan. 15, 2008, for a flight time of 20 days. The BESS payload flew 30 days from Dec. 22, 2007, to Jan. 22, 2008.

### Launch

A NASA Black Brant XII sounding rocket was launched Jan. 18, 2008, from Andoya Rocket Range, Norway. The Sounding of the Cusp Ion Fountain Energization Region-2 (SCIFER-2) payload was to investigate ionospheric outflows between 200 km and 1400 km in the polar cusp. Spectacular science was obtained.

Dr. Paul Kintner, Cornell University, was the experimenter. Jay Scott, NASA Sounding Rocket Operations Contract (NSROC) was the mission manager. Libby West, NASA Range and Mission Management Office, was the project manager.

## We remember and honor their legacy.....

Apollo 1 -- On January 27, 1967, a flash fire occurred during a launch pad test of the Apollo/Saturn vehicle. Three astronauts, Virgil Grissom, Edward White, and Roger Chaffee died in this tragic accident.

Challenger -- On January 28, 1986, the space shuttle Challenger's crew died in the explosion of their spacecraft 73 seconds into the flight. The crew included Mike Smith, Dick Scobee, Ron McNair, Ellison S. Onizuka, Christa McAuliffe, Greg Jarvis, and Judith A. Resnik.

## Upcoming Training

Microsoft Outlook Basic  
February 4  
Building E-104, Room 308

Sessions will be held from 8 a.m. to noon  
and 1 to 5 p.m.

To sign up, go to SATERN at <https://satern.nasa.gov> On the SATERN site, put WFF in the search catalog and click go. Then click on the course title WFF-Microsoft Outlook Nomad Basic and register.

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Range Safety Operations  
March 3 - 7, 2008  
Building E-107 1st Floor Conference Room  
Registration is due by February 3, 2008

This class is for anyone identified as needing initial training for future/current employment as a Range Officer within NASA, or personnel in the management chain responsible for oversight of Range Safety Officers.

Personnel **MUST** be familiar with Range Safety Operations at Wallops Flight Facility or Dryden Flight Research Center or have attended NSTC 074, 086, and 096.

This course is only presented at WFF.

The course is limited to six and is offered at no cost to all NASA and contractor employees.

Registration is via SATERN at: <https://satern.nasa.gov/elms/learner/authenticate.do>

## Thank You!

by Chris Purdy, NASA Electrical Engineering Branch



While in Antarctica in support of the CREAM (scientific balloon) project, I broke my leg. I'd like to take this opportunity to thank everyone that helped me during my time of need.

The project team made sure I was as comfortable as possible under the circumstances. A television was set-up for me to watch and meals were brought to my dorm while I waited to get transported off the Ice. Supervisors at Wallops, as well as the travel department, worked diligently to guarantee my travel from Antarctica back home would go smoothly, considering my condition. Also, my gratitude is extended to the staff of the Wallops Health Facility for their close interaction with the doctors in Antarctica.

Without the help from everyone involved I don't know how I would have made it through this ordeal. Although it was an unfortunate incident, I can look back on it and smile knowing how fortunate I am to work with such a great group of people.

## Thumbs Up.....

The lines at the front gate were unusually long, extending down Mill Pond and Atlantic Roads, due to a delayed opening for inclement weather on Friday morning. Thumbs up to our employees for being polite and patient when entering the gate.



## eOPF Roadshow

February 13  
1 to 2 p.m.  
Project Support Building Auditorium

The eOPF is an online version of the Official Personnel Folder for civil service employees and documents their federal government employment history.

No advance registration is required.

For further information, contact Nicole Reed at x66-2001 or Danielle Tolbert at x66-7283.

## NASA College Scholarship Fund

The NASA College Scholarship Fund (NCSF) is announcing its 2008 Agency-wide call for applications.

The NCSF awards undergraduate scholarships to NASA dependents pursuing a course of study in science or engineering fields. Six scholarships will be awarded this year. Information on the program, including the application, is available on the Internet at: <http://nasapeople.nasa.gov/nasascholarship/index.htm>

The deadline for applications is **March 20, 2008.**

## Fitness Club

Membership dues for the Wallops Fitness Club are now due. Dues for current members are \$20. New members have a \$5 key card deposit in addition to the \$20 yearly membership. The key card locks will be changed February 1, 2008. Don't get locked out.



Contact the following for new key cards:

Wallops Exchange, Bldg. E2, x2020  
Robert Tittle, Bldg. N159, x1244  
Tom Wilson, Bldg. N161, x1570  
John Gerlach, Bldg. N159, x1515  
Roland Wescott, Bldg. E107, x1624

## Goddard Contractor Excellence Award

The Contractor Excellence Award represents Goddard's recognition of companies that make a substantial contribution to the mission of the Center.

Applications for the Goddard Contractor Excellent Award for FY08 are due February 11.

Visit <http://gsfcea.gsfc.nasa.gov/> to learn more about the award and application process.

## Words to Live by

"There is no such thing as can't, only won't. If you're qualified, all it takes is a burning desire to accomplish, to make a change"..... Jan Ashford



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